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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/747,735	12/29/2003	James William Rembert	9400-66	6632

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RALEIGH, NC 27627

EXAMINER

TSEGAYE, SABA

ART UNIT	PAPER NUMBER
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2616

MAIL DATE	DELIVERY MODE
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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/747,735	Applicant(s) REMBERT ET AL.	
	Examiner Saba Tsegaye	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date, _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 7-21 are rejected under 35 U.S.C. 101 because the Applicant is claiming “a computer readable storage medium” which makes claims 7-21 non-statutory subject matter since the computer readable medium include **electrical connection** and the computer readable medium **could even be paper**, see specification page 2, paragraph 0019.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 2, 4-9 and 11-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Harel et al. (US 2004/0190548 A1).

Regarding claims 1 and 8, Harel discloses a method of operating a multiprotocol label switching (MPLS) network, comprising:

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establishing a label switched path (LSP) that connects a first provider edge (PE) label switched router (LSR) a second PE LSR, and a customer edge (CE) LSR (page 2, 0017, lines 9-21);

encapsulating packet traffic that is associated with a plurality of different layer two technologies with an MPLS label (see figs. 1 and 2; page 5, 0084); and

securely routing the encapsulated packet traffic from the first PE LSR through the second PE LSR to the CE LSR using the LSP (page 2, 0017).

Regarding claims 2 and 9, Harel discloses the method wherein the layer two technologies comprise asynchronous transfer mode (ATM) technology, frame relay technology, point-to-point protocol/high level data link control (HDLC) technology, private line time division multiplexing (TDM), and/or Ethernet technology (see fig. 2; claim 3).

Regarding claims 4 and 11, Harel discloses the method wherein the MPLS label is statically provisioned from the second PE LSR to the CE LSR and stitched to a signaled LSP in a service provider network that connects the first and second PE LSRs (0017).

Regarding claims 5 and 12, Harel discloses the method further comprising:
provisioning a pseudo wire virtual circuit within the LSP for each one of a plurality of attachment circuits at the first PE LSR (0017, lines 1-7).

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Regarding claims 6 and 13, Harel discloses the method wherein the LSP and/or pseudo wires, which are terminated via signaling at the second PE LSR, transit on to the CE LSR (0017, lines 1-7).

Regarding claims 7 and 14, Harel discloses the method wherein each of the packets comprising the packet traffic comprises a control word that identifies one of the plurality of different layer two technologies that the respective packet is associated with (page 2, 0017, lines 9-21).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 15, 16 and 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harel et al.

Harel discloses all the claim limitations as stated above. Further, Harel discloses that the ITDs comprise combinations of dedicated hardware switching and logic elements with software-driven microprocessors for control and computation functions. Harel does not expressly disclose a computer program product for operating the MPLS network.

However, it would have been obvious to one ordinary skill in the art at the time the invention was made to use software-based machines. The benefit using computer-readable

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device is that programs can be changed and upgraded and new features are added easily than hardware changes.

6. Claims 3, 10 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harel et al. in view of Chu et al. (US 2004/0059831 A1).

Harel discloses all the claim limitations as stated above, except for an internal service provider IP-virtual private network.

Chu teaches, in fig. 1 the second PE LSR (110) uses an internal service provider IP-virtual private network (0007; 0009; 0034; 0039-0041).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use an IP-VPN, such as that suggested by Chu, in the system of Harel in order to secure a required bandwidth for each end user.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Meda (US 2005/0226245 A1) discloses a MPLS device enabling service providers to control service level in forwarding of multi-labeled packets.

Chu et al. (US 2004/0255028 A1) discloses functional decomposition of a router to support virtual private network services.

Haihong (US 2003/0156541 A1) discloses a method and system for reserving resources on an MPLS path.

Tabata (US 2001/0016914 A1) discloses an IP virtual private network constructing method and IP virtual private network.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Saba Tsegaye whose telephone number is (571) 272-3091. The examiner can normally be reached on Monday-Friday (7:30-5:00), First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing Chan can be reached on (571) 272-7493. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Saba Tsegaye
Examiner
Art Unit 2616

ST
July 6, 2007


7/9/07
WING CHAN
SUPERVISORY PATENT EXAMINER